

SAFETY COMMISSION AGENDA STATEMENT

Item 9
Meeting Date 09/13/07

ITEM TITLE: Report on Speed Limit Establishment at Bonita Road between Bonita Glenn Drive and I-805 Southbound Ramps

SUBMITTED BY: Principal Civil Engineer *JRC*

During the month of June 2007, City staff completed several Engineering and Traffic Surveys for various segments of Bonita Road. It was at this time staff discovered one segment of Bonita Road was not covered by any surveys. As a result, staff completed a speed survey for Bonita Road between Bonita Glenn Drive and the I-805 southbound ramps, and pursuant to the authority under the Chula Vista Municipal Code Section 10.48.020, city staff has determined that a 35 mph speed limit should be established.

RECOMMENDATION: That the Safety Commission concur with staff's recommendation to recommend to Council the establishment of a 35 mph speed limit on Bonita Road between Bonita Glenn Drive and the I-805 southbound ramps and that Schedule X of the register maintained in the office of the City Engineer be revised to include this established speed limit.

DISCUSSION:

In accordance with the California Vehicle Code, the posting of speed limits must be supported by an Engineering and Traffic Survey which shall include: (1) prevailing speeds as determined by traffic engineering measurements; (2) accident records; and (3) traffic/roadside conditions not readily apparent to the driver. The Manual on Uniform Traffic Control Devices (2003 MUTCD) states that speed limits should be established at the nearest (5mph) increment to the 85th percentile speed (which is defined as that speed at or below which 85 percent of the traffic is moving) unless engineering judgment recommends otherwise based on roadway characteristics. Speed limits higher than the 85th percentile speed are not generally considered reasonable and safe. Limits below the 85th percentile do not facilitate the orderly movement of traffic. Speed limits established on this basis conform to the consensus of those who drive the street as to what speed is reasonable and safe, and are not dependent on the judgment of one or a few individuals. Only when roadside development results in traffic conflicts or unusual conditions, which are not readily apparent to drivers, speed limits may be posted below the 85th percentile speed.

Physical Conditions:

The following table shows the existing conditions for Bonita Road:

Segment Limits	Bonita Glenn Drive to I-805 S/B Ramps
Length/Width	0.11 mi. /82'-94' curb to curb
Classification	Six Lane Prime
ADT (Year)	34,549 (2007)
Exist. Speed Limit	Not posted

85th Speed	36 mph
Number of Lanes	2 lanes westbound and 3 lanes eastbound near the SB ramps
Striping	2 lanes & 3 lanes with a right turn pocket onto the SB ramp
On-Street Parking	Not allowed.
Land Use	Business
Horizontal Alignment	Tangent
Vertical Alignment	G1 = +0.4% to G2 = +0.93%, grade break over centerline Design speed (geometric): 70 mph
Accident Rate: Segment / State	1.68/2.16 (per million vehicle miles)
Special Conditions	Businesses with direct driveway access. Adjacent to I-805 southbound ramps and bike lanes and bus routes along both directions

Following the MUTCD, with an 85% speed of 36 mph, the speed limit should be posted 35 mph. This speed limit is further supported by the fact that speed limits on Bonita Road to either side of this segment are 35 mph. Staff therefore recommends the establishment of a 35 mph speed limit based on the low accident rate, design speed, 85th percentile speed as outlined in the Engineering/Traffic Survey, and roadway characteristics. Staff also recommends that Schedule X of the register maintained in the office of the City Engineer be revised as follows:

10.48.020 Schedule X – Established Speed Limits in Certain Zones – Designated			
Name of Street	Beginning At	Ending At	Proposed Speed Limit
Bonita Road	Bonita Glenn Drive	I-805 Southbound Ramps	35 mph

FISCAL IMPACT:

The cost to install signs and pavement legends is approximately \$400.

Attachments: Speed Survey
Location Plat

SPEED LIMIT - ENGINEERING/TRAFFIC SURVEY

STREET: Bonita Road
LIMITS: Bonita Glen Drive - I-805 S/B Ramp
Length of Segment (ft): 603' (0.11 miles)
Existing Posted Limit (mph): Not Posted

SUMMARY OF SPEED SURVEYS

Segment: Bonita Glen Drive - I805 S/B Ramp
Date Taken: 6/7/2007
No. of Vehicles on Sample (cars): 100
85th Percentile (mph): 36
Range of Speeds Recorded (mph): 19 - 42

ROADWAY CHARACTERISTICS

Width (ft): 82'-94' curb to curb with a 4'-15' raised median
Total No. of Lanes: 5 total lanes (2 westbound and eastbound lanes; 3 eastbound lanes at the I-805 southbound ramps)
Horizontal Alignment: Tangent
Vertical Alignment: Less than 2% grade change

TRAFFIC CHARACTERISTICS

Average Daily Traffic: 34,549 (2007)
On-Street Parking: Not allowed
Special Conditions: Solid businesses with direct driveway access. Adjacent to I-805 southbound ramps and bike lanes and bus routes along both directions.
Accident History: The accident rate at this segment is 1.68 (accidents per million vehicle miles) which is lower than the rate of 2.16 for similar roadways in the State of California.

SURVEY RESULTS

Study was Prepared by: Erica Mancilla
Date: 7/2/2007
Recommendation: Retain 35mph speed limit due to the 85th percentile speed, roadway and traffic characteristics.
Date Recommendation Approved: 9/6/2007
By: Jim Newton, P.E. *JAN*
Approved Speed Limit (mph): 35 mph
Per CVC 40803, Survey Expires: 6/7/2014





CITY OF
CHULA VISTA

Location Map

